



**Garage**

Tech Bits with Tim Stock

**Technical** **AUTOBIZ**  
**Helpline**

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**Tim Stock**

## Just one coat...Blinding a Mercedes radar unit



**The DISTRONIC unit is located behind the grille**

As vehicles have progressed, more and more systems designed to assist the driver have been developed. These have improved vehicle safety, and have provided benefits to the overall driver experience. But these systems have come with some complex diagnostic issues, and a poor understanding of what can and can't be done to the vehicle, without interfering with the performance of these systems.

A recent call to the Technical Helpline is just one good example of how these systems can be affected by a seemingly innocent modification, with some complex results.

A 2019 Mercedes CLA, C118, was presented to the technician with a fault in the DISTRONIC system, an active cruise control system that helps drivers maintain a safe

distance behind the vehicles in front of you. The fault, C174A, was present, indicating a fault with the calibration of the DISTRONIC module being outside of the permissible range. This unit is mounted behind the front grille, and is used to monitor objects in front of the vehicle. This data

is used for active braking and automatic cruise

control. The vehicle had already been to several workshops trying to resolve the issue, but none had resolved the fault.

One of the possible fault causes was that the sensor was dirty, but cleaning did not successfully clear the fault. It is also important to note that once the unit is disturbed, it will require recalibration with dedicated ADAS equipment.

After questioning the customer, it transpired he had just bought the car several days before. During the test drive, he had no issues. He asked the seller to fit a black grille before the sale. When he collected the vehicle, the grille was now all black. Within a few days, the fault appeared.

Armed with this information, we took a close look at the grille. Rather than replacing the grille they had painted it, and this had given rise to the sensor "Dirty" code. Also, by removing the DISTRONIC unit to clean, it had also created the need to recalibrate, using dedicated ADAS equipment.

We have seen this problem several other times on a variety of vehicles that have had the grilles replaced with after-market components that are not designed for models fitted with Radar Cruise sensors. The density of the plastic in the grille is an important consideration, as is also any paint or coating, as these sensors need to see through the grille unobstructed.



**The grille was painted black, disturbing the DISTRONIC unit function**